

# GREEN INFRASTRUCTURE PLAYBOOK

NEW HARTFORD, IOWA



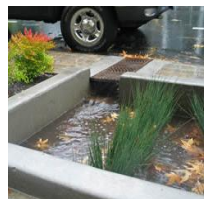
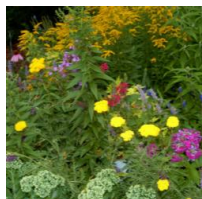
## Resources / Case Studies

Resource	Agency	Website
Backyard and Urban Conservation	Natural Resource Conservation Services	<a href="http://www.ia.nrcs.usda.gov/features/Backyard.html">http://www.ia.nrcs.usda.gov/features/Backyard.html</a>
Urban Conservation Photo Gallery		<a href="http://www.ia.nrcs.usda.gov/features/urbanphotos.html">http://www.ia.nrcs.usda.gov/features/urbanphotos.html</a>
Rain Garden Incentive Program for Homeowners in Pottawattamie County		<a href="http://www.ia.nrcs.usda.gov/features/PCraingardens.html">http://www.ia.nrcs.usda.gov/features/PCraingardens.html</a>
Iowa Rain Garden Projects	Urban Resources & Borderland Alliance Network	<a href="http://www.urbanwaterquality.org/RainGardens/projects1.htm">http://www.urbanwaterquality.org/RainGardens/projects1.htm</a>
Brochure for the Urban Conservation Program	Iowa Department of Agricultural and Land Stewardship	<a href="http://www.iowaagriculture.gov/FieldServices/pdf/Urban_Conser_vation_Brochure.pdf">http://www.iowaagriculture.gov/FieldServices/pdf/Urban_Conser_vation_Brochure.pdf</a>
Iowa Regional Watershed Coordinators		<a href="http://www.iowaagriculture.gov/waterResources/pdf/RegionalCo_ordinators.pdf">http://www.iowaagriculture.gov/waterResources/pdf/RegionalCo_ordinators.pdf</a>
Elmhurst, IL multiple practices on one site	One Drop at a Time – New Resourceful Paradigms at 168 Elm Ave	<a href="http://www.delafleur.com/168_Elm/index.htm">http://www.delafleur.com/168_Elm/index.htm</a>



Resource	Agency	Website
Iowa Stormwater Management Manual Native Landscaping	Iowa State University, CTRE (Center for Transportation Research and Education)	<a href="http://www.intrans.iastate.edu/pubs/stormwater/documents/2E-6NativeLandscaping.pdf">http://www.intrans.iastate.edu/pubs/stormwater/documents/2E-6NativeLandscaping.pdf</a>
Iowa Stormwater Management Manual	Iowa State University, CTRE (Center for Transportation Research and Education)	<a href="http://www.ctre.iastate.edu/PUBS/stormwater/index.cfm">http://www.ctre.iastate.edu/PUBS/stormwater/index.cfm</a>
Iowa Stormwater Education Program	Iowa Association of Municipal Utilities	<a href="http://iowastormwater.org/">http://iowastormwater.org/</a>
List of Qualified Iowa Rain Gardeners		<a href="http://www.iowastormwater.org/Portals/0/pdf/RG%20Exam%20May%202009%20Passed.pdf">http://www.iowastormwater.org/Portals/0/pdf/RG%20Exam%20May%202009%20Passed.pdf</a>
IDNR Stormwater manuals, brochures, videos, etc.	Iowa Department of Natural Resources	<a href="http://www.iowadnr.gov/water/watershed/stormwater.html">http://www.iowadnr.gov/water/watershed/stormwater.html</a>
Iowa Department of Natural Resources General Permit #2		<a href="http://www.iowadnr.com/water/stormwater/index.html">www.iowadnr.com/water/stormwater/index.html</a>
Iowa Stormwater Best Management Practices Database		<a href="http://programs.iowadnr.gov/stormwaterbmp/Default.aspx">http://programs.iowadnr.gov/stormwaterbmp/Default.aspx</a>





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IOWATER Volunteer Water Quality Monitoring Program		<a href="http://www.iowater.net/">http://www.iowater.net/</a>
The Natural Resources GIS Library	Iowa Department of Natural Resources Geological Survey	<a href="http://www.igsb.uiowa.edu/nrgislib/">http://www.igsb.uiowa.edu/nrgislib/</a>
Water: Drinking, Stormwater and Wastewater	Iowa Department of Economic Development	<a href="http://www.iowalifechanging.com/community/resources/water.aspx">http://www.iowalifechanging.com/community/resources/water.aspx</a>
Green Roofs in Iowa		<a href="http://www.iowalifechanging.com/community/resources/greenroofs.aspx">http://www.iowalifechanging.com/community/resources/greenroofs.aspx</a>
Iowa Green Street Criteria		<a href="http://www.iowalifechanging.com/community/downloads/green-criteria08.pdf">http://www.iowalifechanging.com/community/downloads/green-criteria08.pdf</a>
Green Infrastructure	U.S. EPA	<a href="http://www.epa.gov/greeninfrastructure">http://www.epa.gov/greeninfrastructure</a>
Watershed		<a href="http://www.epa.gov/owow/watershed/">http://www.epa.gov/owow/watershed/</a>
Nonpoint Source Program		<a href="http://www.epa.gov/owow/nps/">http://www.epa.gov/owow/nps/</a>
Stormwater Program		<a href="http://cfpub.epa.gov/npdes/home.cfm?program_id=6">http://cfpub.epa.gov/npdes/home.cfm?program_id=6</a>
Low Impact Development		<a href="http://epa.gov/nps/lid/">http://epa.gov/nps/lid/</a>
Smart Growth Program		<a href="http://www.epa.gov/smartgrowth/">http://www.epa.gov/smartgrowth/</a>



Resource	Agency	Website
Protecting Water Quality With Smart Growth Strategies and Natural Stormwater Management in Sussex County, Delaware	U.S. EPA	<a href="http://www.epa.gov/smartgrowth/pdf/2009_0106_sussex_county.pdf">http://www.epa.gov/smartgrowth/pdf/2009_0106_sussex_county.pdf</a>  See chapter 5 for before and after images of green streets and rain gardens.
Region 7 Land Revitalization and Reuse	U.S. EPA Region 7	<a href="http://www.epa.gov/region07/land_revitalization/index.htm">http://www.epa.gov/region07/land_revitalization/index.htm</a>
Portland School Raingarden Retrofit: Glencoe Elementary	Portland Bureau of Environmental Services	<a href="http://www.portlandonline.com/shared/cfm/image.cfm?id=147510">http://www.portlandonline.com/shared/cfm/image.cfm?id=147510</a>
Rain Garden Soil Evaluation Tool	West Michigan Environmental Action Council	<a href="http://www.raingardens.org/Evaluate_the_Soil.php">http://www.raingardens.org/Evaluate_the_Soil.php</a>



## Plants for Rain Gardens

Resource	Agency	Website
Iowa Rain Garden Manual - plant list is on page 26	Iowa Department of Agricultural and Land Stewardship	<a href="http://www.agriculture.state.ia.us/press/pdfs/RainGardenManual.pdf">http://www.agriculture.state.ia.us/press/pdfs/RainGardenManual.pdf</a>
Iowa Native Plant Database and Invasive Plant list	Iowa Living Roadway Trust Fund	<a href="http://www.iowalivingroadway.com/IowaPlants.asp">http://www.iowalivingroadway.com/IowaPlants.asp</a>
Detailed plant list for Iowa Rain Gardens	Prairie Rivers of Iowa Resource Conservation & Development	<a href="http://prrcd.org/Recommended_Plants/raingarden%20native%20spp.htm">http://prrcd.org/Recommended_Plants/raingarden%20native%20spp.htm</a>
Plants for Stormwater Design	Minnesota Pollution Control Agency	<a href="http://www.pca.state.mn.us/publications/manuals/stormwaterplants.html">http://www.pca.state.mn.us/publications/manuals/stormwaterplants.html</a>
Wisconsin Native Plants for Rain Gardens, with photos	Wisconsin Department of Natural Resources	<a href="http://dnr.wi.gov/runoff/rg/RaingardenPlantList.pdf">http://dnr.wi.gov/runoff/rg/RaingardenPlantList.pdf</a>
Wisconsin Shade Plants, with photos		<a href="http://dnr.wi.gov/runoff/rg/plants/shady/ShadyRGPlantList-photos.pdf">http://dnr.wi.gov/runoff/rg/plants/shady/ShadyRGPlantList-photos.pdf</a>



## Funding Resources

Grant/Loan Name	Agency	Website
Iowa Community Development Block Grant (CDBG) Program	Iowa Department of Economic Development	<a href="http://www.iowalifechanging.com/community/community/default.aspx">http://www.iowalifechanging.com/community/community/default.aspx</a>
State Revolving Fund for Wastewater and Drinking Water <sup>1</sup>	Iowa Finance Authority Iowa Department of Natural Resources	<a href="http://www.iowasrf.com/">http://www.iowasrf.com/</a>
Iowa Watershed Improvement Review Board <sup>2</sup>	Iowa Department of Agriculture and Land Stewardship	<a href="http://www.iowaagriculture.gov/IWIRB.asp">http://www.iowaagriculture.gov/IWIRB.asp</a>
Watershed Planning Grant	Iowa Department of Natural Resources	<a href="http://www.iowadnr.gov/water/watershed/planning.html">http://www.iowadnr.gov/water/watershed/planning.html</a>
Watershed Development and Planning Assistance Grant	Iowa Department of Agriculture and Land Stewardship Iowa Department of Natural Resources Natural Resource Conservation Services	<a href="http://www.iowaagriculture.gov/waterResources/pdf/protocolBrochure.pdf">http://www.iowaagriculture.gov/waterResources/pdf/protocolBrochure.pdf</a>
Water and Waste Direct Loan and Grant Program <sup>3</sup>	U.S. Department of Agriculture Rural Development Program	<a href="http://www.rurdev.usda.gov/ia/cp_util_ww-Dir.html">http://www.rurdev.usda.gov/ia/cp_util_ww-Dir.html</a>



Grant/Loan Name	Agency	Website
EPA Region 7 Grant Opportunities	U.S. EPA Region 7	<a href="http://www.epa.gov/region7/economics/r7_grant_opportunities.htm">http://www.epa.gov/region7/economics/r7_grant_opportunities.htm</a>
EPA Grants	U.S. EPA	<a href="http://www.epa.gov/ogd/grants/funding_opportunities.htm">http://www.epa.gov/ogd/grants/funding_opportunities.htm</a>
Federal Grants	Grants.gov	<a href="http://www.grants.gov">http://www.grants.gov</a>

<sup>1</sup> Some of the key types of State Revolving Funds include (from the Iowa SRF website):

**Stormwater Grants:** The types of eligible projects include infiltration practices, soil quality restoration, native landscaping, detention basins, ponds or wetland systems, pervious paving systems, grassed waterways or other practices that are shown to improve or protect water quality

**Local Water Protection Program:** The types of eligible projects include composting facilities, contour buffer strips, field borders or windbreaks, filter strips, riparian forest buffers, terraces, grade stabilization structures, grassed waterways or other practices that are shown to improve or protect water quality.

**Planning and design (P&D) loans:** 0% interest for up to three years to cover engineering and project development costs. P&D loans can be rolled into an SRF construction loan, or paid off with other permanent financing.

**Construction loans:** Lowest cost funds compared to other financing options, with interest rate of 3%. Loan term is up to 30 years, based on the average life of the project components, for all Clean Water SRF loans. For Drinking Water SRF loans, disadvantaged communities can qualify for up-to-30-year terms.

Contact Patti Cale-Finnegan, DNR State Revolving Fund Coordinator, 515-725-0498 or [patti.cale-finnegan@dnr.iowa.gov](mailto:patti.cale-finnegan@dnr.iowa.gov).






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<sup>2</sup> Iowa Watershed Improvement Review Board details (from IDALS website):

**EPA Section 319 Funds.** These funds are provided by the U.S. Environmental Protection Agency (EPA) for distribution through the Iowa Department of Natural Resources. These funds are used for various nonpoint source pollution control activities including water quality improvement and watershed projects. EPA Section 319 funds are appropriated by Congress to the EPA, a federal agency.

**Water Protection Fund (WPF).** WPF funds are appropriated by the Iowa Legislature through the Resource Enhancement and Protection (REAP) account. This program is administered through the Iowa Department of Agriculture and Land Stewardship-Division of Soil Conservation (IDALS-DSC) to address ground and surface water quality concerns from point and nonpoint sources of pollution.

**Watershed Protection Fund (WSPF).** WSPF funds are appropriated by the Iowa Legislature and are administered by the IDALS-DSC. These funds provide state support to locally-led watershed protection initiatives. These funds are used to help develop projects that use integrated approaches to meet multiple purpose objectives.

Technical assistance on watershed planning and identifying potential sources of technical and financial assistance for watershed groups can be obtained through your Regional Coordinator. Contact information for your Regional Coordinator can be found in the following brochure: <http://www.iowaagriculture.gov/waterResources/pdf/RegionalCoordinators.pdf>

<sup>3</sup> USDA Rural Development funds can be used for:

- Purchase, construct, enlarge, extend and/or improve rural drinking water, sanitary sewage, solid waste disposal, and storm wastewater disposal facilities;
- Purchase major equipment related to the project;
- Pay related project expenses, such as legal, engineering, architectural, and environmental fees